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भाग 2 संपर्कों का विस्तार और अवस्थिति

(पहला पुनरीक्षण)

Indian Standard

IDENTIFICATION CARDS — INTEGRATED CIRCUIT(S) CARDS WITH CONTACTS

PART 2 DIMENSIONS AND LOCATION OF THE CONTACTS

(First Revision)

ICS 35.240.15

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

February 2003

Price Group 3

Computer Hardware Sectional Committee, LTD 37

NATIONAL FOREWORD

This Indian Standard (Part 2) (First Revision) which is identical with ISO/IEC 7816-2:1999 'Information technology — Identification cards — Integrated circuit(s) cards with contacts — Part 2: Dimensions and location of the contacts' issued by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) jointly was adopted by the Bureau of Indian Standards on the recommendation of the Computer Hardware Sectional Committee and approval of the Electronics and Telecommunication Division Council.

IS 14202 (Part 2) was originally published in 1995 and was identical to ISO/IEC 7816-2:1988. This is now being revised to align it with ISO/IEC 7816-2:1999.

In the adopted standard, certain conventions are not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point(.) as the decimal marker.

CROSS REFERENCE

In this adopted standard, reference appears to the following International Standard for which Indian Standard also exists. The corresponding Indian Standard which is to be substituted in its place is listed below along with its degree of equivalence for the edition indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 7816-1:1998 Identification cards — Integrated circuit(s) cards with contacts — Part 1: Physical characteristics	IS 14202 (Part 1):2003 Identification cards — Integrated circuit(s) cards with contacts : Part 1 Physical characteristics (*first revision*)	Identical

The concerned Technical Committee responsible for the preparation of this standard has reviewed the provisions of the following International Publications and has decided that they are acceptable for use in conjunction with this standard:

ISO/IEC 7810:1995 Identification cards — Physical characteristics

ISO/IEC 7811-1:1995 Identification cards — Recording technique — Part 1:Embossing

ISO/IEC 7811-2:1995 Identification cards — Recording technique — Part 2: Magnetic stripe

ISO/IEC 10373:1993 Identification cards — Test methods

IS 14202 (Part 2) : 2003
ISO/IEC 7816-2 : 1999

Indian Standard

IDENTIFICATION CARDS — INTEGRATED CIRCUIT(S) CARDS WITH CONTACTS

PART 2 DIMENSIONS AND LOCATION OF THE CONTACTS

(First Revision)

1 Scope

This part of ISO/IEC 7816 specifies the dimensions, locations and assignment for each of the contacts on integrated circuit(s) cards of an ID-1 card type.

This part of ISO/IEC 7816 is to be used in conjunction with ISO/IEC 7816-1.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 7816. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 7816 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 7810:1995, *Identification cards — Physical characteristics.*

ISO/IEC 7811-1:1995, *Identification cards — Recording technique — Part 1: Embossing.*

ISO/IEC 7811-2:1995, *Identification cards — Recording technique — Part 2: Magnetic stripe.*

ISO/IEC 7816-1:1998, *Identification cards — Integrated circuit(s) cards with contacts — Part 1: Physical characteristics.*

ISO/IEC 10373:1993, *Identification cards — Test methods.*

3 Dimensions of the contacts

The shape and the surface of the conductive zones which include each contact are not defined in this part of ISO/IEC 7816.

Each contact shall have a minimum rectangular surface area not less than the dimensions specified in figure 1.

This part of ISO/IEC 7816 does not define the maximum dimensions or shape of the contacts except for the requirement that each contact shall be electrically isolated from the other contacts.

Dimensions in millimetres

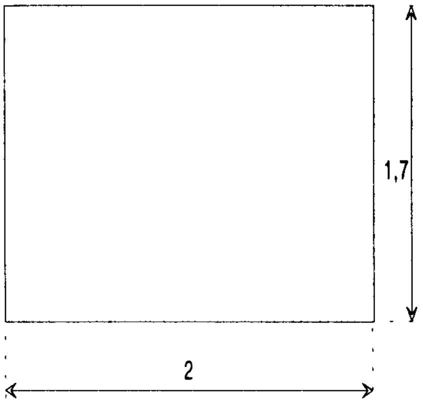

Figure 1 — Minimum dimensions of the contacts

4 Number and location of the contacts

This part of ISO/IEC 7816 defines eight contacts referred to as C1 to C8.

The contacts are located as shown in figure 2.

The contacts shall be located on the front of the card (see annex A). The dimensions are referenced to the left and upper edges of the front surface of the card.

See ISO/IEC 10373 for the test method.

Dimensions in millimetres

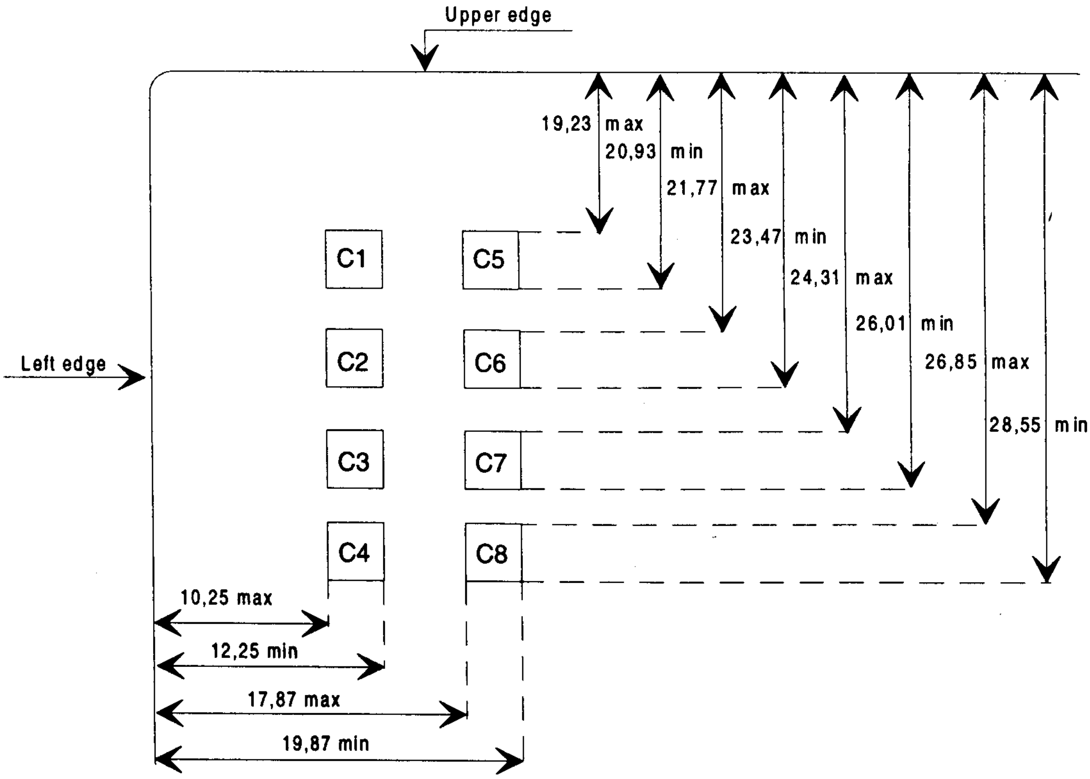

Figure 2 — Location of the contacts

5 Assignment of the contacts

Each numbered contact shall be assigned as specified in table 1.

Unused contact areas shall be either non-conductive or electrically isolated from any other contact area in order to avoid potential short circuit in interface devices.

It is recommended that electrical isolation is provided according to annex B.

Table 1 — Assignment of the contacts

Contact No.	Assignment	Contact No.	Assignment
C1	VCC (Supply voltage)	C5	GND (Ground)
C2	RST (Reset signal)	C6	VPP Variable supply voltage (e.g. programming voltage)
C3	CLK (Clock signal)	C7	I/O (Data input/output)
C4	Reserved for future use in other parts of ISO/IEC 7816	C8	Reserved for future use in other parts of ISO/IEC 7816

Annex A
(informative)

Location of contacts relative to other technologies

Embossing (ISO/IEC 7811-1) when present, is located on the same side as the contacts. Magnetic stripe (ISO/IEC 7811-2), when present, is located on the opposite side. See figure A.1.

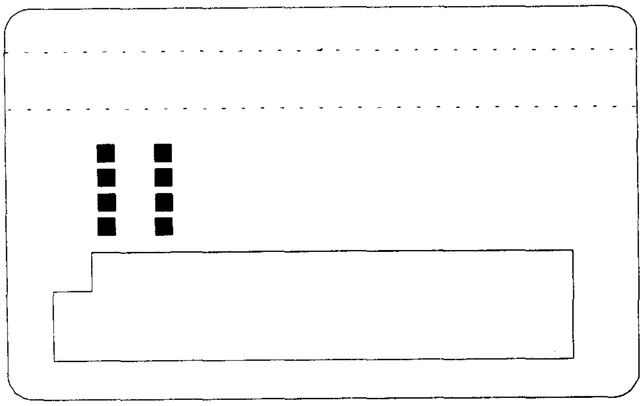

Figure A.1 — Front side of the card

Annex B
(informative)

Location of possible conductive zones

Up to 1990, a transitional position of the contact was defined in ISO/IEC 7816. As a result, terminals were deployed which accept cards with contacts in either position. The purpose of this annex is to highlight this fact and allow manufacturers (essentially card manufacturers) to take this into account. In this respect, the electrical isolation of zones Zx (x=1...8) should be provided.

Dimensions in millimetres

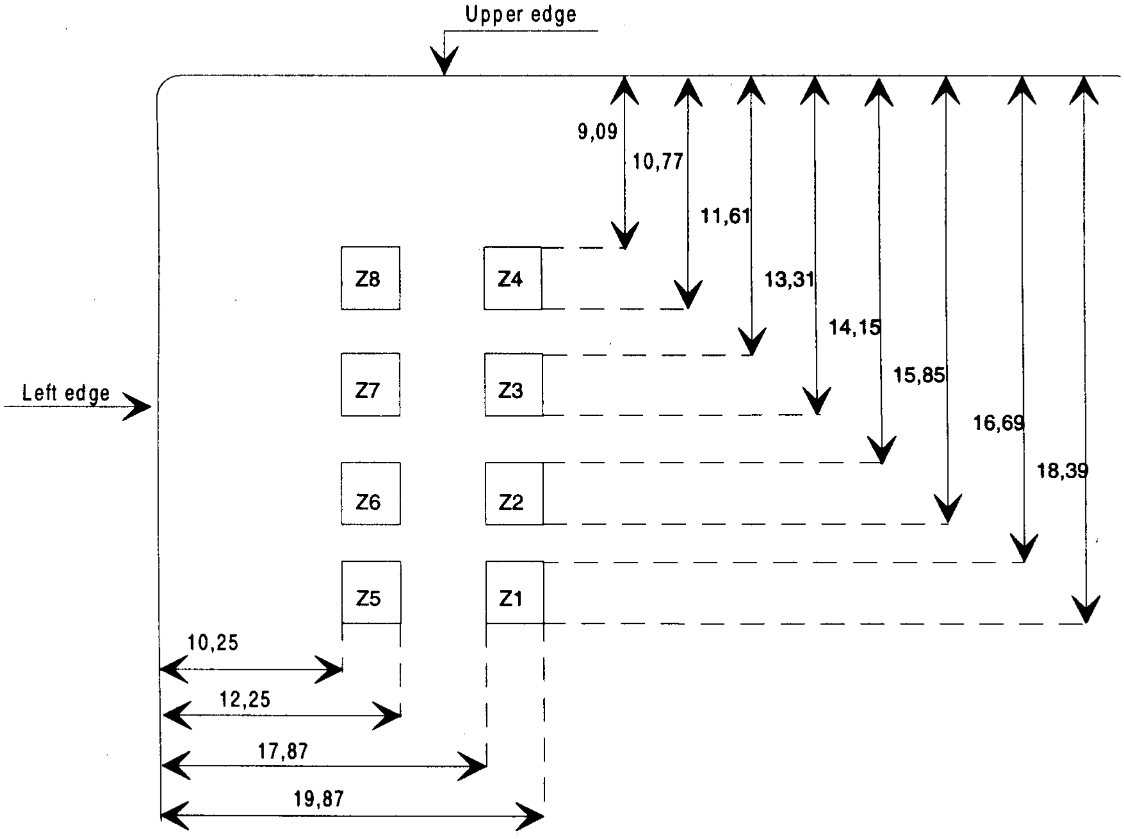

Figure B.1 — Location of possible conductive zones

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This Indian Standard has been developed from Doc : No. LTD 37 (1941).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110 002 Telegrams : Manaksanstha
Telephones : 323 01 31, 323 33 75, 323 94 02 (Common to all offices)

Regional Offices :		Telephone
Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg New Delhi 110 002	2323 76 17 2323 38 41
Eastern	: 1/14, C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi KOLKATA 700 054	2337 84 99, 2337 85 61 2337 86 26, 2337 91 20
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